Alaska Snow Survey Report

USDA Natural Resources Conservation Service

April 1, 2017

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Cover photo: Snow Surveyors Craig Sanders and Brad Casar with help from the helicopter pilot, get ready to measure the snow course at the Lower Kachemak SNOTEL site on March 29th, 2017. The new snow course was measured with 45" of snow depth with 16.8" of water

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General Overview

SnowPack

The snowpack in most of the state remained somewhat static over the course of March. Limited precipitation and cooler than normal temperatures meant that much of the state's snowpack neither made significant gains, nor started to melt out early either. Southeast Alaska, parts of the Arctic Slope and portions of Southcentral, however, did see some significant increases during the month.

Even with only minor gains during March, the snowpack in the central Tanana Valley remains robust and is the only part of the state with significantly above normal snowpacks. This above normal snowpack tapers off to near normal conditions down river and to the north.

In the northern part of the state, areas with near normal snowpacks include the upper Koyukuk valley, parts of the central Yukon basin, the lower Tanana valley, northwest Alaska, and the Arctic. In the southern part of the state, past of Southeast Alaska snowpacks are near normal along with several low elevation snowpacks around Cook Inlet, Kenai Peninsula, and Bristol Bay.

Below normal snowpacks characterize the Copper basin, the upper Tanana Valley, the Yukon Flats, the lower Koyukuk and Yukon basins, and much of the Kuskokwim. Below normal snowpacks are also present in portions of Southeast Alaska, the Susitna basin and on most of the Kenai Peninsula and Cook Inlet mountains.

Precipitation

Most of the state saw little, if any, precipitation during March. Most basins received less than half of normal March precipitation. Only Southeast Alaska and the Arctic Slope received normal or above normal precipitation.

Western Alaska was particularly dry. Besides Bethel, where the NWS site recorded 0.3" of precipitation during the month (42% of normal), no other station from Kotzebue Sound to Bristol Bay records more than 0.1" of precipitation during the month. Several stations record no precipitation gains during the month, including McGrath, Aniak SCAN, Unalakleet SCAN, Kelly Station SNOTEL on the Noatak River, Kanaryagak Camp SCAN near Chevak, and Rocky Point and Pargon SNOTEL near White Mountain.

The eastern half of the Interior was also dry during March, but there was some variability. The nine compiled precipitation sites in the Tanana basin averaged 30% of normal March precipitation, but varied from 0-90% individually. Similarly in the Central Yukon basin the 4 sites averaged 46% of normal monthly precipitation, but ranged from 0-67%.

A late month storm in Southcentral Alaska provide the only precipitation of the month to several locations. The four sites in the MatSu basins averaged 36% of normal March precipitation while Anchorage area sites averaged 50% and Kenai Peninsula sites averaged 22% of normal. Sites on the Kenai Peninsula range from 0-58% of normal.

Certainly more precipitation fell in Prince William Sound where up to 5.9" fell on Esther Island SNOTEL near Whittier, but comparably it was still a dry month with only 39% of normal precipitation falling.

Southeast saw mixed precipitation with more precipitation falling in the southern half of the panhandle. Ketchikan and Annette Island had nearly 150% of normal March precipitation. Further north, Juneau had 118% of normal precipitation, but nearby Long Lake SNOTEL, Moore Creek Bridge near Skagway and Yakutat all had below normal precipitation.

General Overview Continued

Temperature

March provided the first winter-time, statewide, below normal monthly temperatures since 2013. Temperatures across most of Alaska were below normal, except for the Arctic Slope and portions of the central Yukon basin.

Talkeetna was nominally below normal for the month with a 2°F below normal departure for March, but most other areas were significantly below normal. Fairbanks was 13°F below normal for March, while Whitehorse, Bettles, Nome, Bethel, Gulkana all recorded 7 or 8°F below normal for the month. Temperatures were still below normal in Southcentral and Southeast, but were more moderate. Anchorage had a -6° F departure from normal while Cordova, Homer and Juneau were 4 or 5°F below normal for March. Barrow continued to be well above normal, recording an 8°F departure above normal for March while Fort Yukon recorded a 2°F above normal departure.

Streamflow Forecasts

FORECAST POINT*	Percent of Ave. Flow	Period
Yukon River at Eagle	92	April - July
Porcupine River nr Int'l Boundary……	101	April - July
Yukon River near Stevens Village	97	April - July
Tanana River at Fairbanks	89	April - July
Tanana River at Nenana	88	April - July
Little Chena River near Fairbanks	108	April - July
Chena River near Two Rivers	109	April - July
Salcha near Salchaket	122	April - July
Sagvanirktok River near Pump Station 3	105	April - July
Kuparuk River near Deadhorse	90	April - July
Gulkana River at Sourdough	73	April - July
Little Susitna River near Palmer	72	April - July
Talkeetna River near Talkeetna	76	April - July
Ship Creek near Anchorage	66	April - July
Kenai River at Cooper Landing	80	April - July
Taiya River near Skagway	103	April - July

Snowmelt Runoff Index (SRI): for streams which no longer have stream gauging stations

FORECAST POINT	INDEX
Koyukuk River at Hughes……..	-0.9
MF Koyukuk R near Wiseman ……..	-0.7
Slate Creek at Coldfoot……..	-0.6
Beaver Creek above Victoria Creek……..	-0.4
Birch Creek below South Fork……..	-1.6
Caribou Creek at Chatanika……..	0.0
Susitna River near Gold Creek……..	-2.3
Chulitna River near Talkeetna……..	-3.0
Deshka River at mouth near Willow……..	-2.6
Montana Creek at Parks Highway……..	-2.0
Willow Creek near Willow……..	-2.1
Skwentna River at Skwentna……..	-2.5
Chuitna River near Tyonek……..	-2.7
Campbell Creek near Spenard……..	-2.3
Indian Creek at Indian……..	-3.0
Bird Creek at Bird Creek ……..	-3.0
Glacier Creek nr Girdwood ……..	-0.4
Six Mile Creek near Hope……..	-2.2
Resurrection Creek near Hope……..	-2.7
Grouse Ck at Grouse Lake Outlet nr Seward ……..	+0.7
Anchor River near Anchor Point ……..	-2.2
Deep Creek near Ninilchik……..	-2.0
Ninilchik River near Ninilchik……..	-2.0
Fritz Creek near Homer……..	-1.6
Skagway River at Skagway……..	+1.7
Municipal Watershed C nr Petersburg ……..	0.0
Gold Creek nr Juneau	+1.0

Index	Key:
-2 to -3	much below average snow-melt runoff
-1 to -2	below average snowmelt runoff
-1 to +1	average snow-melt runoff
+1 to +2	above average snowmelt runoff
+2 to +3	much above average snow-melt runoff

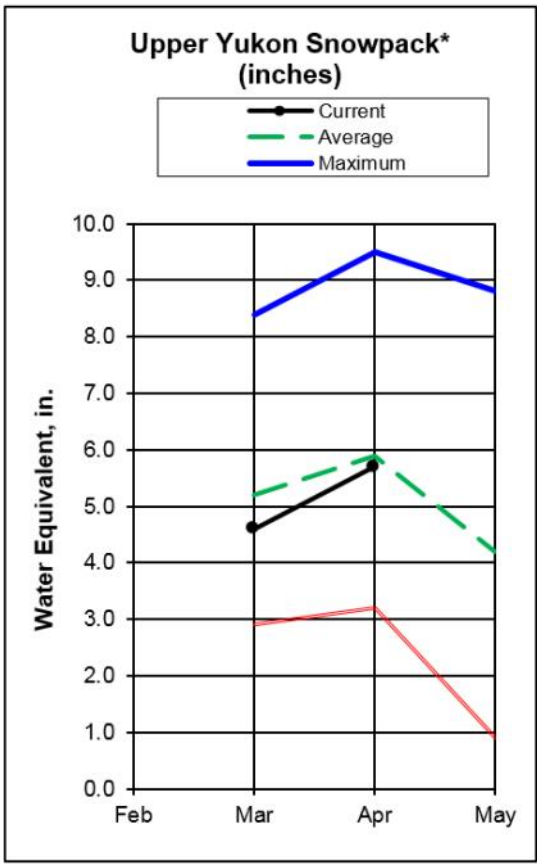
HOW FORECASTS ARE MADE

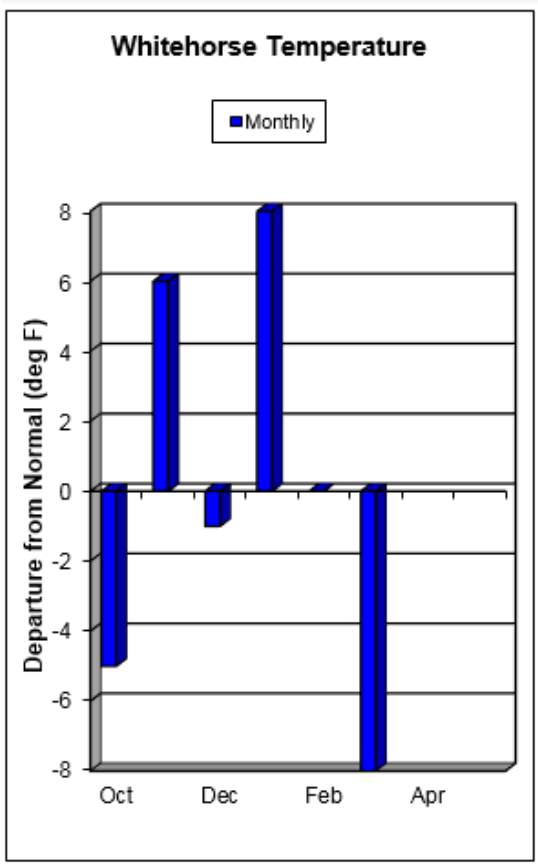
Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Upper Yukon Basin





Snow pack

The Upper Yukon basin's 30 measured sites average 89% of normal. Sites ranged from well below normal in the southeast Yukon Territory to above normal in the central part of the basin.

The snowpack upriver from Whitehorse is just below normal. The ten sites measured in the area average 89% of normal, ranging from 57% of normal at Morley Lake up to 110% of normal at Mt. McIntyre.

The most robust part of the basin was the White River drainage. The four measured snow sites here averaged 103% of normal, ranging from 90-121% of normal.

Further north, the Dawson area snow courses average 94% of normal. King Solomon Dome snow course has the same water content as last year.

To the east, the Stewart and Pelly drainages also had below normal snowpacks. The 11 sites measured in these basins were 84% of normal, ranging from 66% of normal at Edwards Lake to 100% at Rackla Lake.

Snowpack Data

Upper Yukon Basin

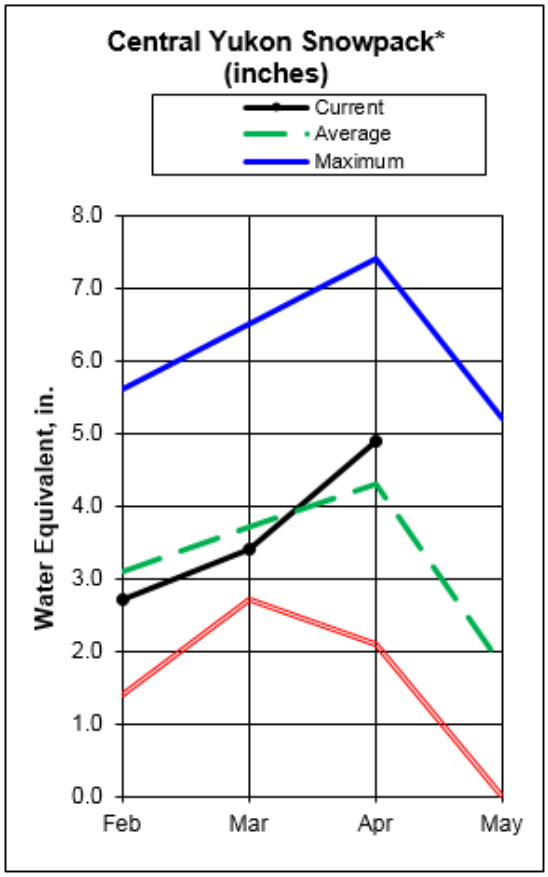
Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Atlin	2395	4/1/2017	24	4.9	9	2.2	20	5.0
Beaver Creek	2150	3/30/2017	16	3.3	12	3.0	17	3.2
Blackstone River	1020	3/29/2017	21	4.7	18	4.5	---	---
Burns Lake	3650	3/30/2017	35	7.8	33	8.2	39	8.9
Burwash Airstrip	2660	3/30/2017	9	1.7	0	0.0	10	1.8
Calumet	4300	3/27/2017	28	6.5	34	8.5	36	7.5
Canyon Mine	1160	3/28/2017	18	3.2	10	2.0	---	---
Casino Creek	3495	3/28/2017	24	4.5	20	5.1	26	5.0
Chair Mountain	3500	3/30/2017	21	4.0	---	---	20	3.5
Eagle Plains	2330	3/29/2017	33	7.5	34	6.2	31	6.6
Edwards Lake	2720	3/29/2017	26	4.2	23	5.9	30	6.4
Finlayson Airstrip	3240	3/30/2017	18	3.0	13	3.3	20	4.2
Francis River	730	3/28/2017	23	4.2	21	4.5	---	---
Fuller Lake	3695	3/29/2017	33	6.8	27	6.6	33	7.7
Grizzly Creek	3200	3/29/2017	29	5.7	27	6.6	31	6.8
Hoole River	3400	3/30/2017	26	4.8	16	3.5	26	5.2
Hyland	855	3/29/2017	27	6.3	23	5.4	---	---
Jordan Lake	3050	3/30/2017	20	3.8	21	5.0	25	5.2
King Solomon Dome	3540	3/30/2017	29	6.0	30	6.0	30	6.3
Log Cabin (B.C.)	2900	3/27/2017	55	16.8	38	14.9	50	15.7
Macintosh	3805	3/28/2017	20	3.8	14	2.4	22	4.0
Mayo Airport	1770	3/27/2017	18	3.5	11	2.8	18	4.2
Meadow Creek	4050	3/30/2017	40	7.9	33	9.1	45	10.9
Midnight Dome	2805	*3/30/2017*	30	6.0	33	8.1	28	5.8
Montana Mtn.	3350	*3/27/2017*	27	5.4	15	3.2	26	5.9
Morley Lake	2700	3/30/2017	17	3.3	17	4.9	26	5.8
Mt. Berdoe	3395	3/29/2017	21	4.7	14	3.4	24	4.2
Mt. Mcintyre B	3600	3/30/2017	32	6.8	17	3.3	28	6.2
Mt. Nansen	3350	3/28/2017	18	3.3	12	2.8	18	3.2
Ogilvie River	550	3/29/2017	24	4.2	26	4.9	---	---
Old Crow	980	3/27/2017	27	4.7	31	5.7	24	4.4
Pelly Farm	1550	4/1/2017	12	3.3	---	---	16	3.0
Pine Lake Airstrip	995	3/29/2017	22	3.7	25	7.7	---	---
Plata Airstrip	2725	3/29/2017	28	5.5	25	5.8	33	7.6
Rackla Lake	3410	3/29/2017	36	7.8	31	6.9	37	7.8
Riffs Ridge	2130	3/29/2017	32	6.1	31	6.6	29	5.7
Rose Creek (Faro)	1080	3/28/2017	21	4.2	18	3.9	---	---
Russell Lake	3480	3/29/2017	36	7.1	33	8.3	37	8.9
Satasha Lake	3630	3/28/2017	24	4.6	13	2.5	20	3.8
Summit	985	3/31/2017	39	11.5	23	5.8	35	9.9
Tagish	3540	3/29/2017	24	5.1	17	3.6	26	6.0
Watson Lake Airport	685	3/30/2017	21	4.2	20	4.2	---	---
Whitehorse Airport	2300	3/31/2017	15	3.0	12	2.6	20	4.0
Williams Creek	3000	3/28/2017	21	4.0	17	3.2	20	3.8
Withers Lake	3200	3/29/2017	35	7.7	30	7.4	39	8.8

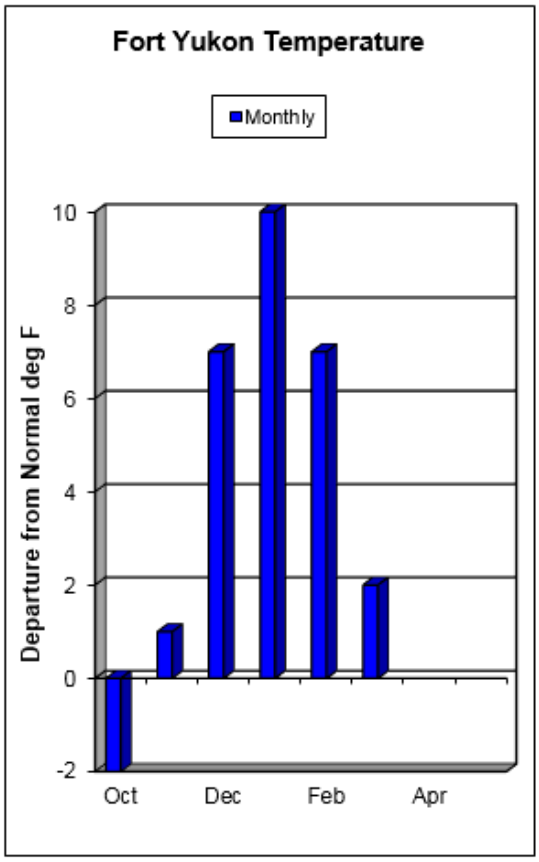
**Estimate*

Streamflow Forecasts

Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Yukon River At Eagle	Apr-Jul	92	109	76	30700	33300

Central Yukon Basin





Snow pack

Central Yukon Basin ranges from above normal in the White Mountains to below normal in portions of the Yukon Flats and the Fortymile country.

The 6 measured sites in the White Mountains average 118% of normal ranging from 73% to 138% of normal.

Down in the Yukon Flats, the snowpack lessens. The western portion remains just above normal while upriver the snowpack drops to below normal.

In the Fortymile region, the five sites measured an average 77% of normal snowpack. The Jack Wade Junction SNOTEL, near the junction of the Taylor and the Top-of-the-World Highways, caught 0.1" of precipitation during March and has 22" of snow with 3.2" of water content.

The Porcupine basin snow courses, in the Yukon Territories, averaged 110% of normal.

Central Yukon Basin

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
American Creek	1050	4/1/2017	16	3.3	15	4.0	---	---
Atigun Pass	4800	4/1/2017	49	---	53	---	---	---
Borealis	1330	3/29/2017	24	5.8	27	5.7	25	4.8
Cathedral Creek	1800	3/29/2017	29	6.7*	21	5.7	---	---
Chicken Airstrip	1650	3/30/2017	13	2.4	15	3.0	16	3.2
Circle Hot Springs	860	3/30/2017	18	3.1	20	3.6	24	4.1
Coal Creek	1000	3/29/2017	17	3.1	16	2.7	---	---
Copper Creek	2000	3/29/2017	19	3.4*	10	2.4	---	---
Crescent Creek	2600	3/29/2017	14	2.7*	17	4.6	---	---
Eagle Summit	3650	4/1/2017	10	---	27	---	---	---
Fort Yukon SNOTEL	430	4/1/2017	15	---	20	---	---	---
Fort Yukon	430	3/29/2017	16	2.7	26	4.6	20	3.6
Fossil	1400	3/29/2017	23	5.7	26	5.2	24	4.8
Graphite Lake	600	3/31/2017	18	3.2*	---	---	---	---
Hess Creek	1000	4/1/2017	25	5.7	24	5.0	26	5.0
Jack Wade Jct	3585	4/1/2017	22	3.2	34	7.6	---	---
Lost Chicken Hill	2150	3/30/2017	15	2.9	20	4.0	18	4.0
Lower Beaver Creek	400	3/31/2017	25	4.7*	---	---	---	---
Mt. Fairplay	3100	3/30/2017	20	3.8	21	4.0	21	4.6
Old Crow	980	3/27/2017	27	4.7	31	5.7	24	4.4
Ptarmigan Creek	2270	3/30/2017	28	5.6	23	4.4	24	4.4
Seven Mile	600	4/2/2017	24	5.4*	27	5.2	26	4.9
Stack Pup Creek	1620	3/30/2017	19	2.9	20	3.1	25	4.0
Step Mountain	2850	3/29/2017	34	6.9*	---	---	---	---
Thirty Mile	1350	4/2/2017	28	7.2	29	6.5	34	7.6
Three Fingers	3350	3/29/2017	27	6.3*	34	7.1	---	---
Upper Nome Creek	2520	4/1/2017	30	6.7*	28	---	---	---
Vunzik Lake	500	3/31/2017	20	3.5*	---	---	---	---
Windy Gap	1900	4/3/2017	29	7.1	28	6.5	26	5.7
Wolf	1200	4/3/2017	23	5.8	22	5.3	23	4.2

**Estimate*

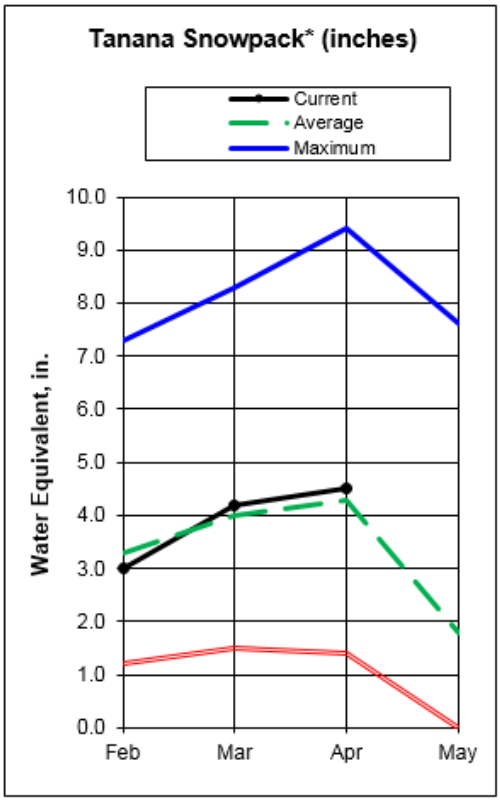
Streamflow Forecasts

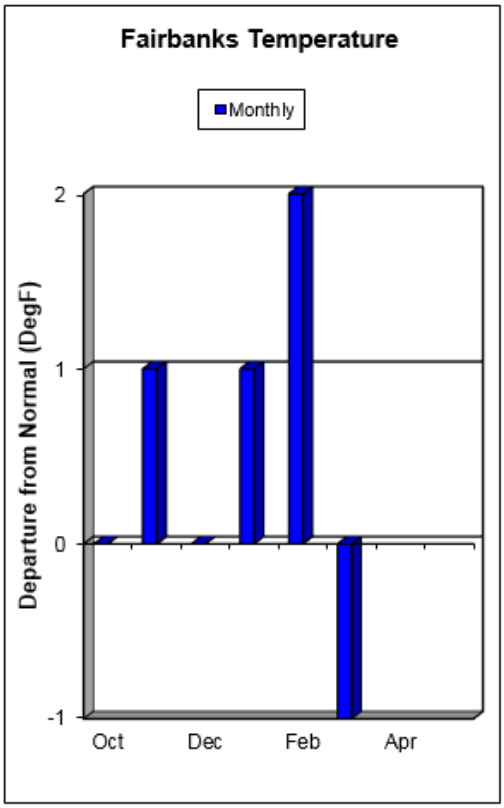
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Porcupine River near Intl Boundary	Apr-Jul	101	147	70	5640	5640
Yukon River near Stevens Village	Apr-Jul	97	109	84	46500	48100

Precipitation

		Inches Accumulated since October 1st			
Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
American Creek	1050	3.2	3.5	---	---
Atigun Pass	4800	4.1	4.4	5.6	73%
Eagle Summit	3650	3.8	5.4	5.3	72%
Fort Yukon	430	2.7	3.8	3.6	75%
Jack Wade Jct	3585	2.8	6.2	---	---
Upper Nome Creek	2520	6.7	5.2	5.2	129%

Tanana Basin





Snow pack

It was a dry month in the Tanana Basin. Most sites received less than half normal March precipitation; several sites didn't receive any measurable precipitation. As a result the snowpack in the basin is very similar to a month ago.

Snowpacks in the Tanana basin range from below normal in the upper basin to well above normal in the central basin.

Snowpacks in the Chatanika and Chena valleys average 122% and 139% of normal, respectively. The six snowpack measurements sites below Fairbanks average 126% of normal.

In the upper Tanana Basin, near Delta Junction, the snowpack is below normal. The three sites measured near here are between 66% and 87% of normal.

Further up the basin, near Tok, the snowpack continues to diminish. The six sites measured in this part of the basin averaged 70% of normal compared to 67% last year. Chisana SNOTEL did gain 2" of snow depth and 0.5" of water content during March.

Tanana Basin

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Bonanza Creek	1150	3/31/2017	28	6.9	20	5.5	21	4.0
Caribou Creek	1250	3/30/2017	25	5.2	8	2.5	20	3.8
Caribou Snow Pillow	900	3/30/2017	27	5.7	13	4.0	20	3.9
Chisana	3320	4/1/2017	14	2.8	10	3.0	---	4.6
Cleary Summit	2230	3/30/2017	32	6.3	30	6.3	28	5.2
Colorado Creek	700	3/29/2017	28	6.4	11	2.6	20	3.6
Fairbanks F.O.	450	4/1/2017	26	5.5	10	2.8	---	3.3
Faith Creek	1750	3/30/2017	26	4.4	20	3.9	26	4.8
Fielding Lake	3000	4/3/2017	27	6.5	40	10.3	40	9.9
Fort Greely	1500	4/4/2017	14	2.7	9	2.1	17	3.2
French Creek	1800	3/30/2017	28	6.2	20	4.9	24	5.2
Gerstle River	1200	4/3/2017	13	2.7	6	1.4	17	3.1
Granite Crk	1240	4/1/2017	15	3.1	8	2.8	---	3.8
Jatahmund Lake	2180	3/30/2017	16	2.5	---	---	18	3.0
Kantishna	1550	3/30/2017	21	4.3*	24	4.6	26	5.1
Lake Minchumina	730	3/30/2017	18	3.2	---	---	20	3.8
Lost Creek	3030	3/30/2017	10	1.8	13	2.6	18	3.7
Mentasta Pass	2430	4/3/2017	15	3.6	21	4.9	27	6.2
Monument Creek	1850	4/1/2017	29	8.3	15	4.7	---	4.6
Mt. Ryan	2800	4/1/2017	23	5.0	22	6.2	---	5.1
Munson Ridge	3100	4/1/2017	38	10.0	33	7.4	---	6.8
Paradise Hill	2200	3/31/2017	14	3.0	6	1.5	17	3.6
Rock Creek Bottom	2250	3/31/2017	20	4.1*	22	4.9	18	3.9
Shaw Creek Flats	980	3/30/2017	19	4.3	5	1.2	14	2.9
Teuchet Creek	1640	4/1/2017	22	5.2	10	3.7	---	3.8
Tok Junction	1650	4/3/2017	15	2.8	7	1.6	20	3.5

**Estimate*

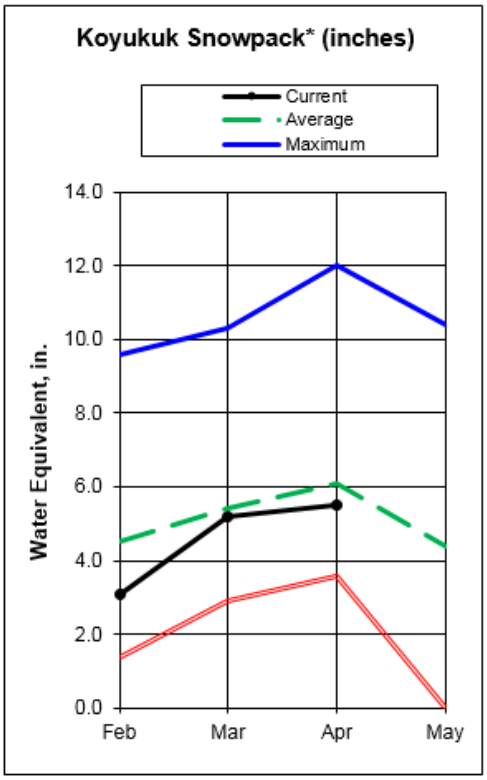
Streamflow Forecasts

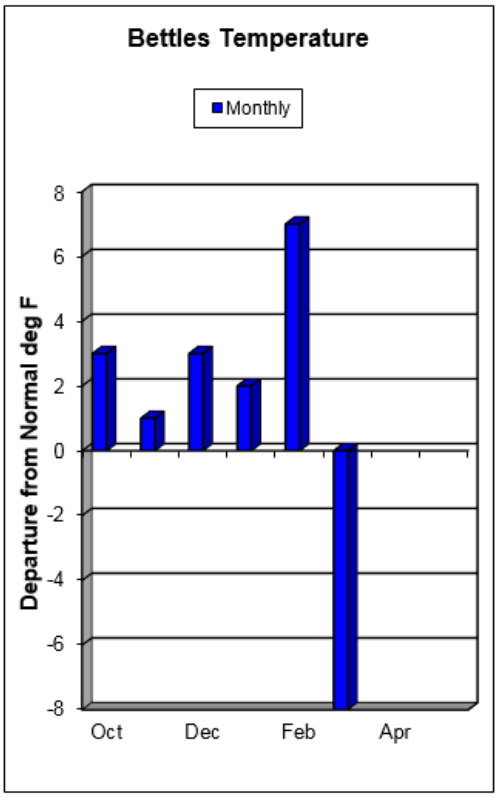
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Salcha River near Salchaket	Apr-Jul	122	162	86	760	625
Tanana River at Fairbanks	Apr-Jul	89	102	76	6660	7460
Chena River near Two Rivers	Apr-Jul	109	151	66	295	270
Little Chena River near Fairbanks	Apr-Jul	108	143	72	84	78
Tanana River at Nenana	Apr-Jul	88	102	75	7960	9000

Precipitation

		Inches Accumulated since October 1st			
Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Chisana	3320	3.0	3.3	---	---
Fairbanks F.O.	450	6.4	3.9	4.5	142%
Granite Crk	1240	3.0	2.1	4.1	73%
Kantishna	1550	4.5	5.0	4.6	98%
Little Chena Ridge	2000	4.9	3.8	5.4	91%
Nenana	415	4.1	3.0	---	---
Tok	1630	---	2.4	---	---
Upper Chena	2850	7.7	5.4	6.7	115%

Western Interior Basins





Snow pack

Koyukuk

The upper Koyukuk basin received about half normal precipitation for the month. Snowpacks in the upper basin are near normal with sites ranging from 80% to 140% of normal. The lower basin received less precipitation during the month and the snowpacks here are more paltry and are below normal.

Kuskokwim

Neither Aniak nor McGrath receive any measurable precipitation during March. The snowpack in the headwater regions of the Kuskokwim remain varied. Portions of the basin are much below normal while others are near normal.

Lower Yukon

The majority of snow sites in this region maintained or lost snow depth during March. The Galena Snow Course had the same depth of snow as last month but gained 0.2" of water content. The snowpacks upriver from Galena are more robust and are normal or above normal compared to those below which are below normal.

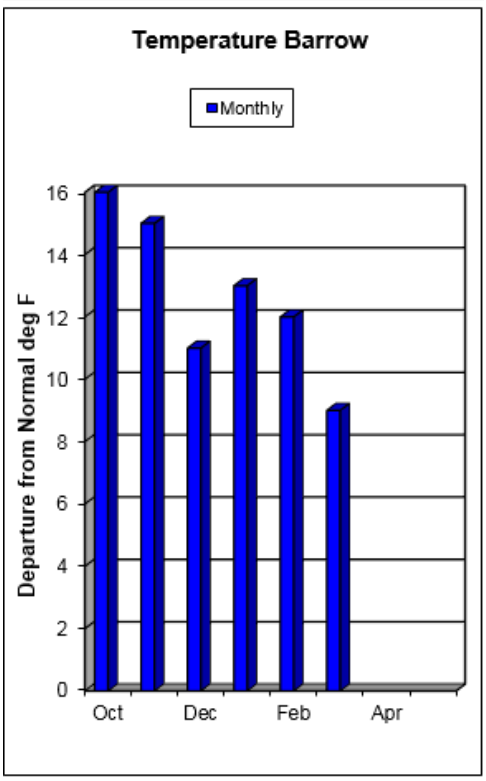
Western Interior Basins

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Koyukuk								
Bettles Field	640	4/1/2017	25	5.3	31	5.3	---	6.4
Bonanza Forks	1200	4/2/2017	26	6.4	15	3.1	26	5.2
Cloverleaf	170	3/30/2017	16	3.4*	26	5.4	---	---
Coldfoot	1040	4/1/2017	28	5.8	29	5.9	---	6.4
Colville Bend	170	3/30/2017	19	4.3*	26	5.3	---	---
Disaster Creek	1550	4/2/2017	19	4.0*	22	4.2	22	4.0
East Chalatna	430	4/3/2017	18	3.7*	---	---	---	---
Gobblers Knob	2030	4/1/2017	16	---	0	---	---	---
Huggins Creek	290	3/30/2017	33	5.6*	24	4.7	---	---
Jr Slough	160	3/30/2017	18	3.3*	26	5.1	---	---
Kaldoyeit	750	4/3/2017	31	6.0*	---	---	21	4.2
Kanuti Chalatna	670	4/3/2017	24	5.2*	---	---	26	5.3
Kanuti Kilolitna	550	4/3/2017	17	3.9*	---	---	22	4.0
Kanuti Lake	524	4/1/2017	21	3.8*	21	---	---	---
Lake Todatonten	550	3/31/2017	26	6.0	29	5.9	29	5.4
Minnkokut	580	4/3/2017	32	6.0*	---	---	34	6.6
Table Mountain	2200	4/2/2017	21	4.2	24	4.7	23	4.0
Treat Island	190	3/30/2017	23	5.8*	17	3.5	---	---
Kuskokwim								
Aniak	80	4/1/2017	14	3.6*	13	---	---	---
Canyon Lake	550	4/1/2017	21	---	7	---	---	---
Mcgrath	340	4/1/2017	13	2.0*	---	---	27	5.6
Purkeypile Mine	2025	3/30/2017	25	4.7	20	4.4	26	5.4
Telaquana Lake	1550	4/1/2017	17	3.0	---	---	20	4.6
Telaquana Lake SNOTEL	1275	4/1/2017	15	4.0	13	4.2	---	---
Lower Yukon								
Bullfrog	380	3/30/2017	18	3.7*	---	---	---	---
Deer Creek	195	3/30/2017	24	5.6*	33	6.9	---	---
Galena Ecological Site	128	3/31/2017	16	3.0	24	5.0	---	---
Little Mud River	855	3/30/2017	21	4.7*	21	4.6	---	---
Lower Nowitna River	205	3/30/2017	25	5.9*	24	4.9	---	---
Middle Innoko	150	3/30/2017	17	3.3*	25	5.3	34	7.7
Ninemile Island	140	3/30/2017	25	5.9*	28	5.5	---	---
Pike Trap Lake	130	3/30/2017	16	3.1*	---	---	---	---
Squirrel Creek	150	3/30/2017	22	5.2*	36	7.8	---	---
Tozikaket	600	3/31/2017	21	5.1*	20	4.0	23	4.2
Upper Innoko	180	3/30/2017	23	4.1*	16	4.3	32	7.4
Wapoo Hills	220	3/30/2017	41	7.4*	34	8.5	36	7.7
Yankee Slough	100	3/30/2017	23	4.2*	32	6.9	41	9.4

**Estimate*

Arctic and Kotzebue Sound



Snow pack

Arctic

The Arctic had above normal precipitation during March. The snowpack at the measurement sites along the Dalton Highway and at Umiat are near normal.

Kotzebue

Kotzebue received only a trace of precipitation during March. Kelly Station SNOTEL, on the Noatak River, recorded no measurable precipitation during the month. Kelly Station SNOTEL has 25" of snow depth with 6.2" of water content. This is similar to the snowpack two years ago.

Arctic and Kotzebue Sound

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Atigun Pass	4800	4/1/2017	49	---	53	---	---	---
Imnaviat Creek	3050	4/1/2017	34	---	21	---	---	---
Kelly Station	310	4/1/2017	25	6.2	20	2.9	---	---
Prudhoe Bay	30	4/1/2017	21	---	6	---	---	---
Sagwon	1000	4/1/2017	20	---	20	---	---	---
Umiat RAWS	267	3/16/2017	20	3.7	16	2.9	---	---

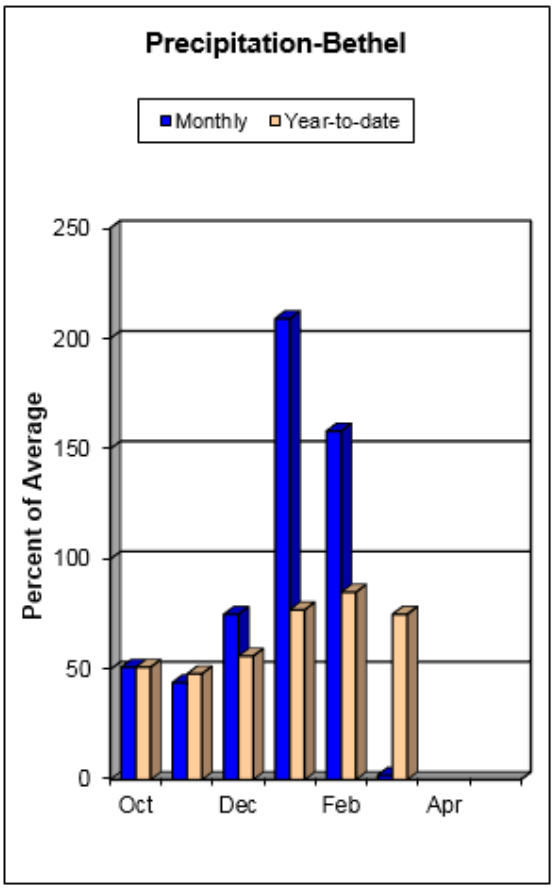
Streamflow Forecasts

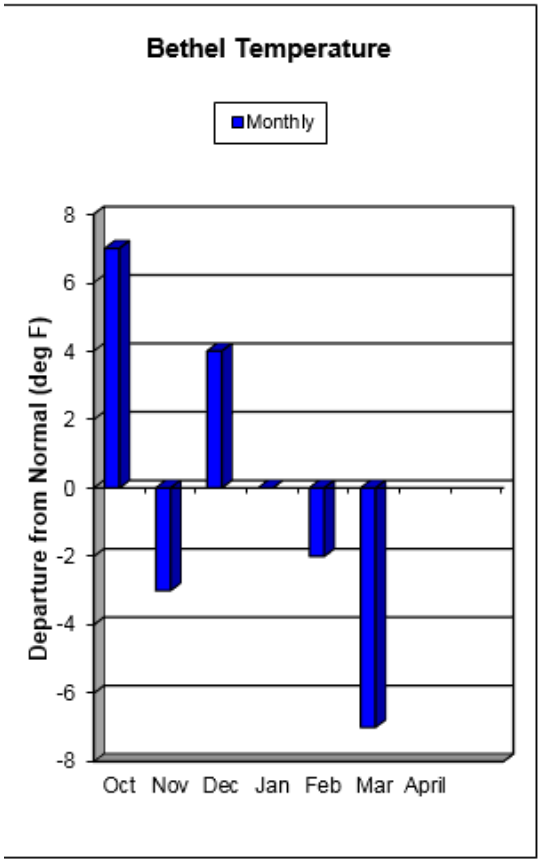
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Kuparuk River near Deadhorse	Apr-Jul	90	121	58	715	796
	May-Jul	94	133	66	750	795
Sagavanirktok River near Pump Station 3	Apr-Jul	105	124	86	715	684
	May-Jul	102	151	69	695	683

Precipitation

Site Name	Elev.	Inches Accumulated since October 1st			
		This Year	Last Year	1981-2010 Normal	% of Normal
Arctic					
Atigun Pass	4800	4.1	4.4	5.6	73%
Imnaviat Creek	3050	2.9	1.7	2.9	100%
Prudhoe Bay	30	3.5	2.3	3.5	100%
Sagwon	1000	2.8	2.4	3.0	93%
Kotzebue Sound					
Kelly Station	310	5.1	3.6	---	---

Norton Sound/Y-K Delta/Bristol Bay





Snow pack

Norton Sound

The Norton Sound area received almost no precipitation during March. Neither Unalakleet SCAN site, nor Rocky Point or Pargon SNOTEL sites, near White Mountain gained any measurable precipitation during the month. Colder than normal temperatures kept existing snow from melting however.

Yukon Kuskokwim Delta

The Y-K Delta was dry and cold during March. Bethel recorded a gain of 0.3" of precipitation during the month.

Bristol Bay

The snowpack is more robust in the Bristol Bay basin this year, compared to last year. The Port Alsworth snow course had 15" of snow with 3.8" of water content which is 115% of normal and considerably more than the bare earth of last year. Naknek River SCAN site, near King Salmon, has 13" of snow. Very little precipitation fell in this area during March.

Norton Sound/Y-K Delta/Bristol Bay

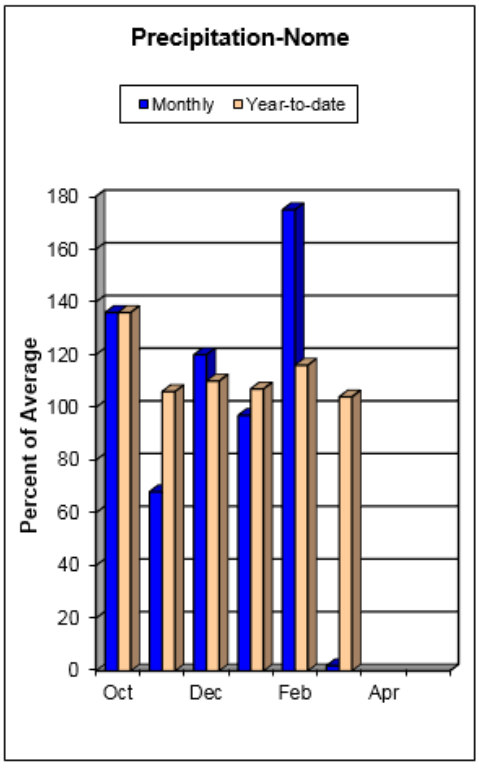
Snowpack Data

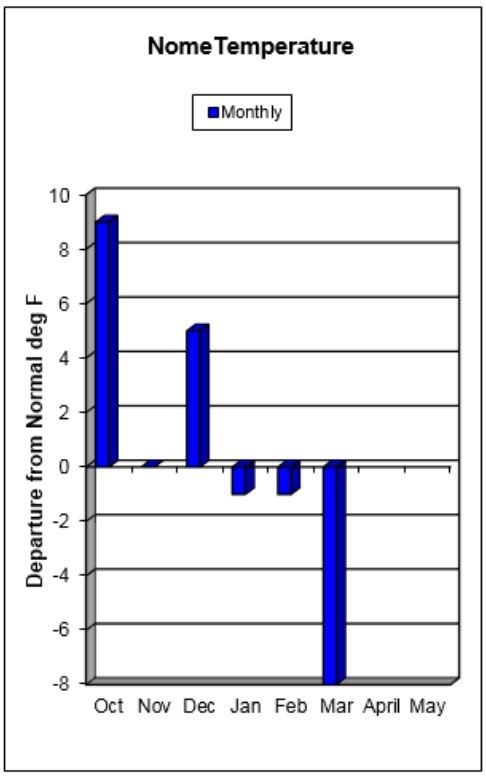
Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Bristol Bay								
Canyon Lake	550	4/1/2017	21	---	7	---	---	---
Lower Mulchatna	320	4/1/2017	8	---	1	---	---	---
Naknek River	100	4/1/2017	13	---	0	0.0	---	---
Port Alsworth	270	3/31/2017	15	3.8	0	0.0	10	3.3
Norton Sound								
Checkers Creek	326	4/1/2017	14	---	10	---	---	---
Johnsons Camp	25	4/1/2017	9	---	9	---	---	---
Pargon Creek	100	4/1/2017	14	2.5*	14	---	---	---
Rocky Point	250	4/1/2017	30	4.6*	24	---	---	---
Unalakleet	290	4/1/2017	10	---	1	---	---	---
Yukon-Kuskokwim Delta								
Kanaryagak Camp	13	4/1/2017	15	---	17	---	---	---

**Estimate*

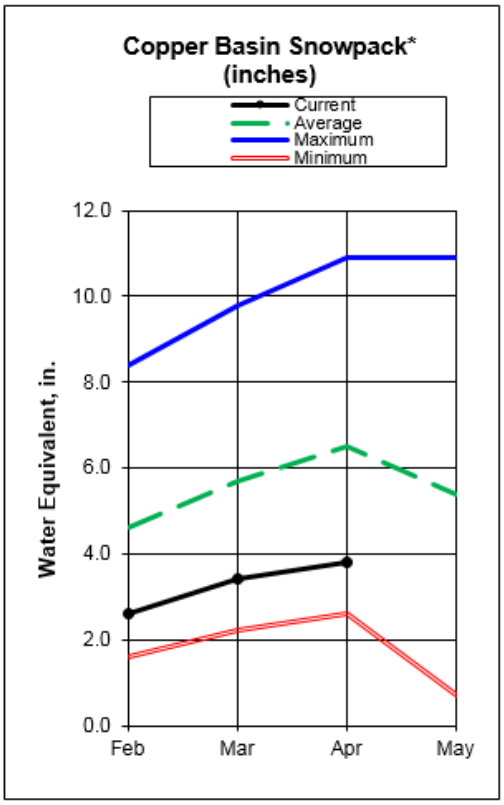
Precipitation

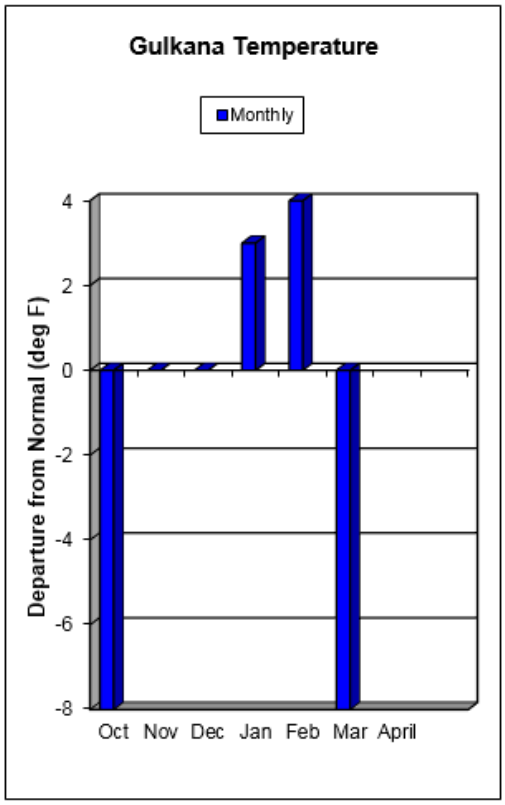
Site Name	Elev.	Inches Accumulated since October 1st			
		This Year	Last Year	1981-2010 Normal	% of Normal
Bristol Bay					
Lower Mulchatna	320	4.5	10.9	---	---
Naknek River	100	4.4	12.1	---	---
Weary Lake	100	---	36.0	---	---
Norton Sound					
Checkers Creek	326	2.7	2.5	---	---
Pargon Creek	100	5.0	7.2	5.9	85%
Rocky Point	250	4.0	5.7	5.4	74%
Unalakleet	290	4.5	5.8	---	---
Yukon - Kuskokwim Delta					
Kanaryagak Camp	13	3.4	4.0	---	---





Copper Basin





Snow pack

The Copper Basin snowpack continues to be below normal. The 18 sites measured averaged 73% of normal. Precipitation was minimal across most of the basin with most sites receiving less than half normal monthly totals. May Creek SNOTEL on the far eastern side, did actually receive 0.6" of precipitation during March which is considered normal.

The Alaska Range courses average 59% of normal compared to 84% last year. The basin floor snowpack was 72% of normal, compared to 56% last year. The western snowpacks are more anemic than the eastern snowpacks.

The Chugach Range sites average 84%. Upper Tsaina SNOTEL gained 1.5" of precipitation during March, 60% of normal. The new Nick's Valley SNOLITE site above Thompson Pass, at 4030' in elevation, has 95" of snow depth, a gain of 14" during the month.

In the Wrangell Mountains, the four snow measurements sites average 72% of normal.

Copper Basin

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Con-tent	Snow Depth	Water Con-tent	Snow Depth	Water Con-tent
Chistochina	1950	4/3/2017	14	2.8	10	2.4	20	3.5
Chokosna	1550	3/30/2017	14	2.8	0	0.0	15	3.8
Copper Center	1264	3/29/2017	19	4.0*	14	3.5	---	---
Dadina Lake	2160	3/31/2017	21	4.1*	18	3.5	28	6.3
Fielding Lake	3000	4/3/2017	27	6.5	40	10.3	40	9.9
Haggard Creek	2540	4/3/2017	19	3.8	18	3.6	28	5.5
Kenny Lake School	1300	3/29/2017	17	3.4	4	1.5	16	3.6
Little Nelchina	2650	3/29/2017	19	3.2	13	2.9	26	5.2
Lost Creek	3030	3/30/2017	10	1.8	13	2.6	18	3.7
May Creek	1610	4/1/2017	22	4.5	10	2.9	---	5.5
Mentasta Pass	2430	4/3/2017	15	3.6	21	4.9	27	6.2
Monsoon Lake	3100	3/31/2017	14	2.4*	21	4.5	30	6.4
Nick's Valley	4280	4/1/2017	95	—-	—	—	—	—
Paxson	2650	4/3/2017	22	4.9	24	5.0	31	6.9
Sanford River	2280	3/31/2017	21	4.2	9	1.7	28	6.0
St. Anne Lake	1990	3/31/2017	21	4.0	19	3.8	23	4.8
Tazlina	1250	3/29/2017	17	3.6	0	0.0	14	3.8
Tolsona Creek	2000	3/29/2017	18	3.2	13	3.1	22	4.2
Tsaina River	1650	4/3/2017	46	13.5*	56	18.0	56	17.0
Twin Lakes	2400	3/31/2017	20	3.6*	10	1.9	26	6.4
Upper Tsaina River	1750	4/1/2017	62	17.9	61	19.7	---	19.4
Worthington Glacier	2100	4/3/2017	64	21.9*	76	28.0	75	24.6

**Estimate*

Streamflow Forecasts

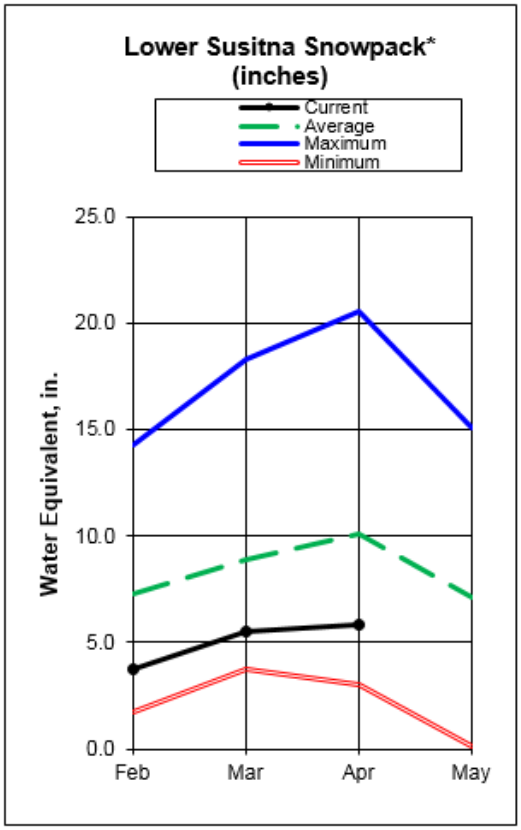
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Gulkana River at Sourdough	Apr-Jul	73	108	39	320	440

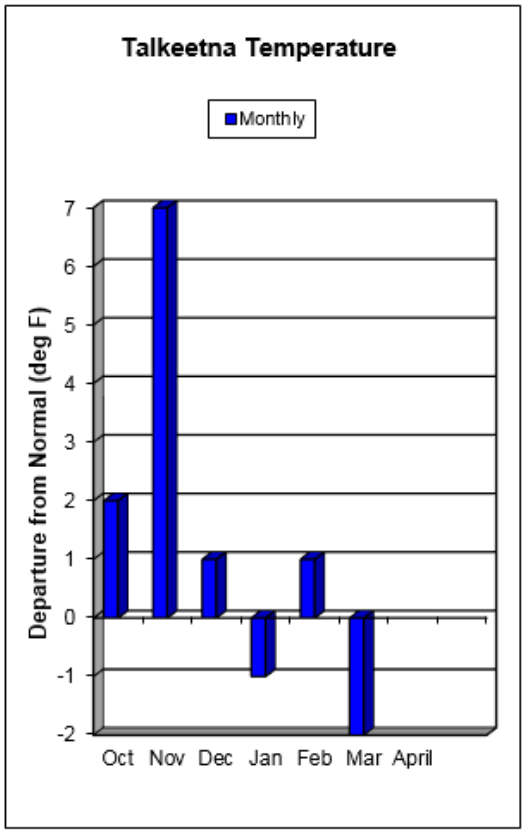
Precipitation

Inches Accumulated since October 1st

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
May Creek	1610	4.8	7.1	6.1	79%
Upper Tsaina River	1750	16.5	25.8	27.0	61%

Matanuska—Susitna Basin





Snow pack

The Matanuska and Susitna basins experienced below to much below normal precipitation during March. Snowpacks across the basin remain below normal. The 29 different snow measurement sites average 64% of normal snowpack for this time of year, ranging from 50 to 88% of normal.

The 6 sites in the lower Susitna basin averaged 63% of normal, and like last month the eastern sites were above 70% and the western sites below 60%. The Willow Airstrip snow course was the site closest to normal in the whole basin with 29" of snow depth and 6.1" of water content, 88% of normal.

Upper Susitna Basin was uniformly below normal, both east and west of the Talkeetna Mountains along with the Peters Hills, with all these areas being around 62% of normal.

The upper Little Su basin fared a little better, with lower elevation sites being between 70-80% of normal and the upper sites being around 60% of normal. Because of the dry start to winter, upper elevation sites continue to be relatively more anemic and the snowpack is uniform up and down the mountainside, especially compared to the last couple of years.

Matanuska—Susitna Basin

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Alexander Lake	160	3/30/2017	30	6.3	34	10.9	42	12.0
Alexander Lake SNOTEL	160	4/1/2017	24	4.6	26	8.9	---	---
Archangel Road	2200	3/31/2017	38	9.8	44	14.4	44	12.2
Birthday Pass	4020	4/1/2017	53	13.8	108	36.3	---	---
Blueberry Hill	1200	3/30/2017	33	8.4	53	17.0	48	13.5
Chelatna Lake	1450	3/30/2017	29	6.5*	23	7.1	45	11.0
Clearwater Lake	2650	3/31/2017	21	4.1*	16	3.3	25	5.4
Curtis Lake	2850	3/31/2017	15	3.2	13	2.6	25	4.6
Denali View	700	3/30/2017	27	6.3	32	9.8	40	12.1
Dunkle Hills	2700	3/30/2017	19	5.2*	61	17.6	---	---
Dutch Hills	3100	3/30/2017	47	11.2*	93	26.2	75	24.8
E. Fork Chulitna	1770	3/30/2017	33	7.6	57	16.2	47	12.1
Fishhook Basin	3300	3/31/2017	43	10.8	76	23.5	55	17.8
Fog Lakes	2120	3/31/2017	21	3.9	21	4.4	24	5.2
Halfway Slough	350	3/30/2017	21	4.5	11	3.3	---	---
Horsepasture Pass	4300	4/1/2017	16	2.8*	27	4.9	30	6.9
Independence Mine	3550	3/31/2017	46	11.7	88	27.8	64	19.8
Independence Mine	3550	4/1/2017	40	10.6	70	17.6	---	11.3
Lake Louise	2400	3/29/2017	17	2.7	15	2.9	22	4.6
Little Susitna	1700	3/31/2017	36	8.3	33	10.5	39	10.1
Monahan Flat	2710	4/1/2017	23	5.0	36	---	---	---
Nugget Bench	2010	3/30/2017	32	8.7*	37	12.1	50	14.6
Ramsdyke Creek	2220	3/30/2017	45	12.7*	71	22.0	64	20.0
Sheep Mountain	2900	3/30/2017	20	3.9	16	4.1	26	5.6
Skwentna	160	3/30/2017	30	5.9	27	7.7	45	11.9
Square Lake	2950	3/31/2017	16	2.8*	18	3.8	21	4.0
Susitna Valley High	375	4/1/2017	24	6.0	16	6.7	---	8.6
Talkeetna	350	3/30/2017	20	4.8	17	5.2	26	6.4
Tokositna Valley	850	4/1/2017	38	9.9	47	14.9	---	12.4
Tyone River	2400	3/31/2017	14	2.8*	17	3.4	21	5.0
Upper Oshetna River	3150	3/31/2017	17	3.1*	24	5.3	20	4.6
Upper Sanona Creek	3100	3/31/2017	16	2.8*	16	3.5	28	5.6
Willow Airstrip	200	3/30/2017	29	6.1	16	4.6	28	6.9

**Estimate*

Streamflow Forecasts

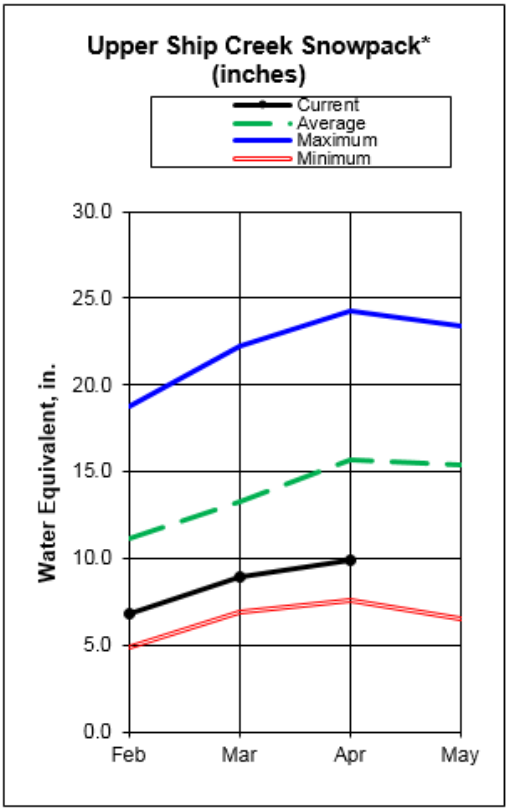
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Little Susitna River near Palmer	Apr-Jul	72	98	45	59	82
Talkeetna River near Talkeetna	Apr-Jul	76	92	60	1190	1570

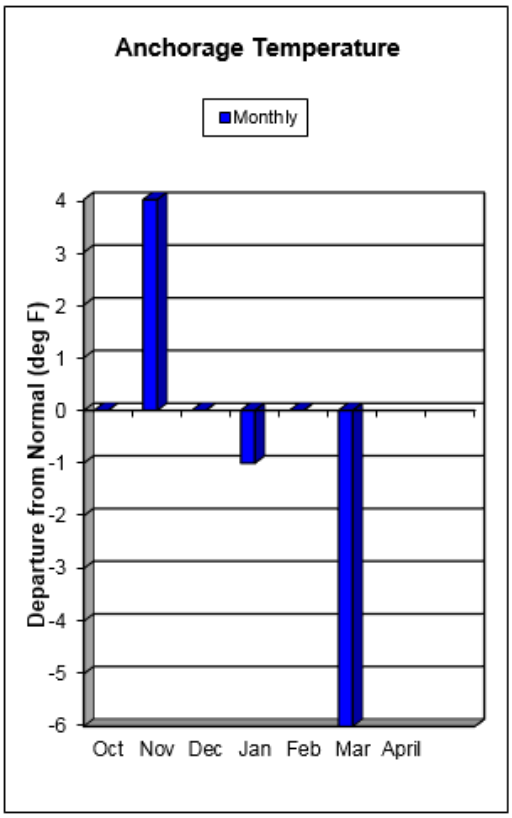
Precipitation

Inches Accumulated since October 1st

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Alexander Lake	160	7.9	17.4	---	---
Independence Mine	3550	11.0	21.6	15.3	72%
Monahan Flat	2710	5.0	6.5	8.1	62%
Susitna Valley High	375	6.7	13.2	11.9	56%
Tokositna Valley	850	10.2	22.4	19.0	54%

Northern Cook Inlet





Snow pack

Most of March was colder than normal and dry. Anchorage was 6°F below normal for the month of March. No real significant precipitation fell in the basin until the last few days of the month, but that one storm system brought the basin totals to 50% of monthly normal.

The twelve snow measuring sites in this area average 74% of normal, only 13% higher than last year's 61% of normal. But this year's and last year's snowpack vary sharply in their distribution. Last year's wet and warm winter created much above normal snowpack at high elevations and virtually nothing in the lowlands. This year it was late and cold before precipitation started falling. As a result, the higher elevation sites have snowpacks that are generally below 70% of normal and low elevation snowpacks are above normal. Kinkaid Park snow course at 250' of elevation and South Fork Campbell snow course at 1200' of elevation have the same measured water content this month. But the 6.0" of snow water is considered 135% of normal at Kinkaid and only 98% of normal at South Fork Campbell.

The Arctic Valley snow courses best capture this spectacle. From bottom to top the five snow courses run from 500' of elevation at Arctic Valley #1, 1000' at #2, 1450' at #3, 2030' at #4, to 3000' at Arctic Ski Bowl. Even though the snow depths and water content generally increase from bottom to top, the percent of normal drops from 158% of normal at #1, to 106% at #2, then 92% at #3, then 86% at #4, to only 70% of normal at Arctic Ski Bowl.

Northern Cook Inlet

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Anchorage Hillside	2080	4/1/2017	36	8.8	19	5.8	---	10.2
Arctic Ski Bowl	3000	3/31/2017	34	9.2	19	7.3	40	12.8
Arctic Valley #1	500	3/31/2017	26	5.7	0	0.0	14	3.6
Arctic Valley #2	1000	3/31/2017	30	5.6	0	0.0	18	4.8
Arctic Valley #3	1450	3/31/2017	30	6.9	12	3.6	28	7.2
Arctic Valley #4	2030	3/31/2017	30	6.6*	14	3.8	28	7.2
Chuitna Plateau	1540	3/30/2017	46	13.5*	70	27.3	76	27.9
Congahbuna Lake	550	3/30/2017	27	6.6*	17	6.2	38	10.6
Granite Point	250	3/30/2017	14	3.5*	0	0.0	16	5.0
Indian Pass	2350	4/1/2017	51	13.1	59	22.1	---	22.0
Kinkaid Park	250	3/30/2017	28	6.0	0	0.0	16	4.4
Lone Ridge	1675	3/30/2017	53	16.6	75	31.5	79	32.3
Moraine	2100	4/1/2017	26	6.3	23	5.9	---	9.0
Mt. Alyeska	1540	4/1/2017	70	18.0	62	21.7	---	32.5
Portage Valley	50	3/31/2017	69	18.7	0	0.0	40	14.6
South Campbell Creek	1200	3/31/2017	32	6.0	0	0.0	28	6.9

**Estimate*

Streamflow Forecasts

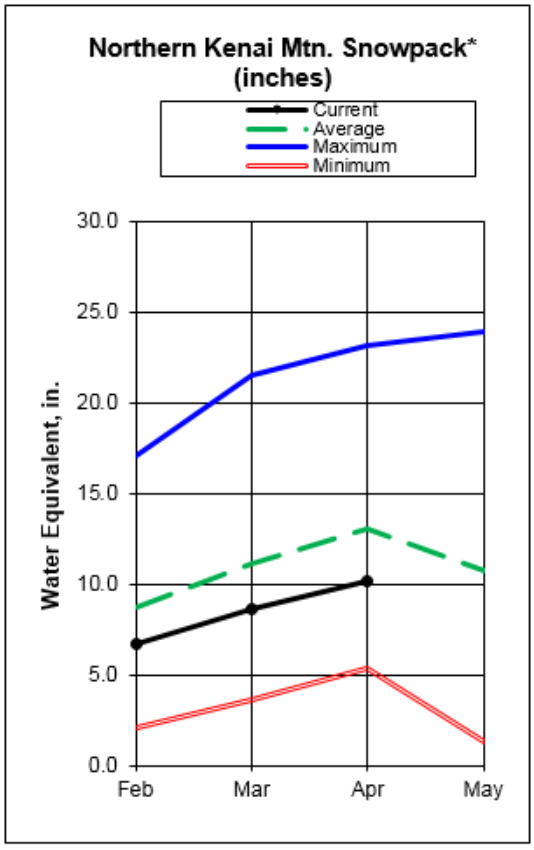
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Ship Creek near Anchorage	Apr-Jul	66	86	45	38	58

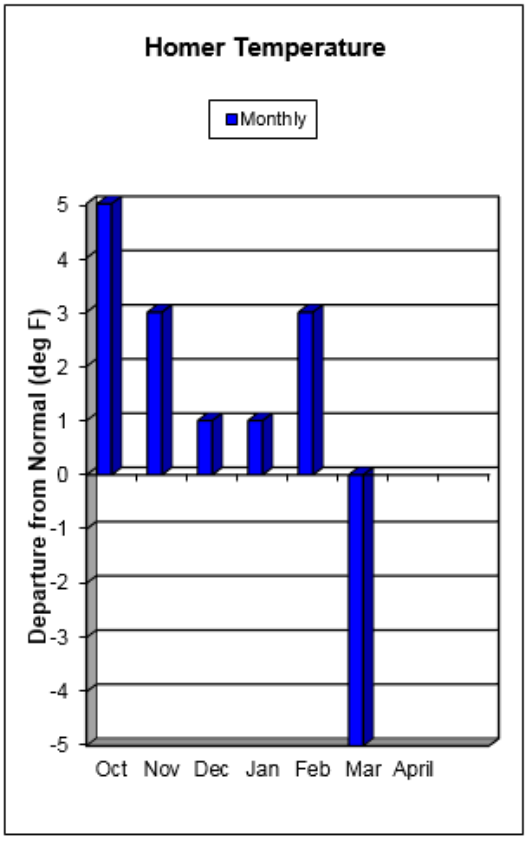
Precipitation

Inches Accumulated since October 1st

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Anchorage Hillside	2080	9.5	10.8	13.7	69%
Indian Pass	2350	17.9	25.3	25.4	70%
Moraine	2100	7.3	10.5	11.7	62%
Mt. Alyeska	1540	28.5	54.6	46.3	62%

Kenai Peninsula





Snow pack

The snowpack on the Kenai Peninsula remains the inverse of last year's snowpack and marginal March snowfall did little to change that. The 22 precipitation sites on the Peninsula averaged only 22% of normal March precipitation.

Last year's wet and warm winter created much above normal snowpack at high elevations and virtually nothing in the lowlands. This year it was late and cold before precipitation started falling. As a result the higher elevation sites have snowpacks that are generally below 70% of normal. Low elevation snowpacks, this year, are more varied, ranging from 80-148% of normal. There are even a few cases where low elevation snow courses have more snow than nearby high elevation sites. Moose Pass snow course at 700' of elevation has 9.8" of water content (148% of normal) while nearby Summit Creek SNOTEL at 1400' only has 7.5" of water content (69% of normal). Similarly, Turnagain Pass (54% of normal) at 1800' has 0.2" less water content than nearby by Portage snow course (128% of normal) at 50' of elevation.

Colder temperatures during March kept most snowpacks from losing any water content. Homer was 5°F below normal for the month of March.

Kenai Peninsula

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Anchor River Divide	1653	4/1/2017	35	9.1	42	15.8	---	11.9
Bertha Creek	950	3/30/2017	49	11.4	44	15.6	53	16.6
Bridge Creek	1300	3/30/2017	32	8.7	25	8.4	40	12.0
Cooper Lake	1200	4/1/2017	44	12.4	40	16.4	---	14.0
Demonstration Forest	780	3/30/2017	26	6.3	0	0.0	28	7.8
Eagle Lake	1400	3/30/2017	41	10.7	40	13.6	42	11.9
Exit Glacier	400	4/3/2017	55	16.7	30	11.3	51	18.2
Exit Glacier SNOTEL	400	4/1/2017	59	16.8	28	9.2	---	18.4
Grandview	1100	4/1/2017	71	19.0	75	34.8	---	32.0
Grouse Creek Divide	700	4/1/2017	55	18.4	42	17.6	---	17.7
Jean Lake	620	4/3/2017	20	3.9	0	0.0	15	3.3
Kachemak Creek	1660	3/29/2017	40	13.5	64	29.0	---	---
Kenai Moose Pens	300	4/1/2017	22	3.9	2	1.0	---	5.0
Kenai Summit	1390	3/30/2017	40	9.2	53	18.1	48	14.8
Lower Kachemak Creek	1915	4/1/2017	45	16.8	---	---	---	---
Mcneil Canyon	1320	4/1/2017	34	8.5	20	8.4	---	10.6
Middle Fork Bradley	2300	4/1/2017	54	---	81	---	---	---
Moose Pass	700	3/30/2017	44	9.8	0	0.0	22	6.6
Mt. Alyeska	1540	4/1/2017	70	18.0	62	21.7	---	32.5
Nuka Glacier	1250	3/29/2017	50	17.7	63	27.7	88	34.6
Pass Creek	1200	4/1/2017	31	6.7	30	8.5	33	9.0
Port Graham	300	4/1/2017	27	8.1	0	0.0	---	8.7
Portage Valley	50	3/31/2017	69	18.7	0	0.0	40	14.6
Resurrection Pass	2250	4/1/2017	32	7.4	43	14.0	38	10.4
Snug Harbor Road	500	4/3/2017	24	6.2	0	0.0	16	4.5
Summit Creek	1400	4/1/2017	31	7.5	38	11.1	---	11.1
Turnagain Pass	1880	4/1/2017	75	18.2	121	57.5	---	33.4

**Estimate*

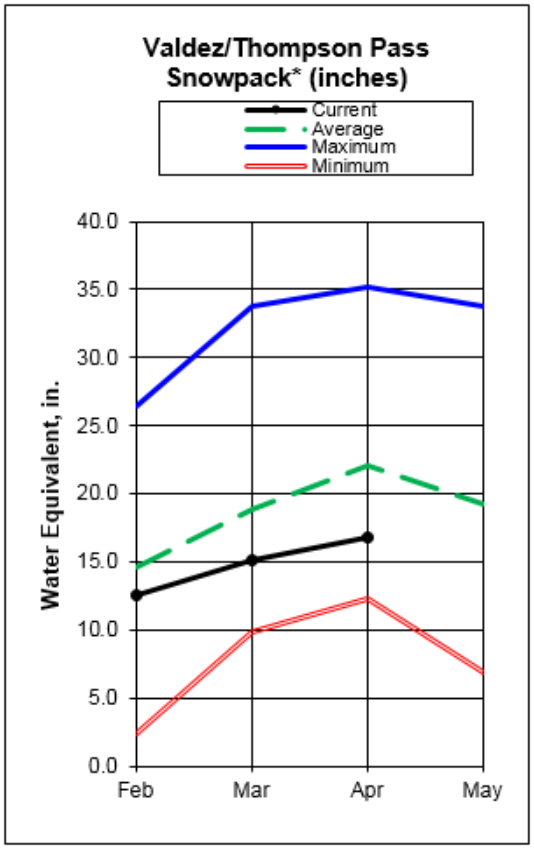
Streamflow Forecasts

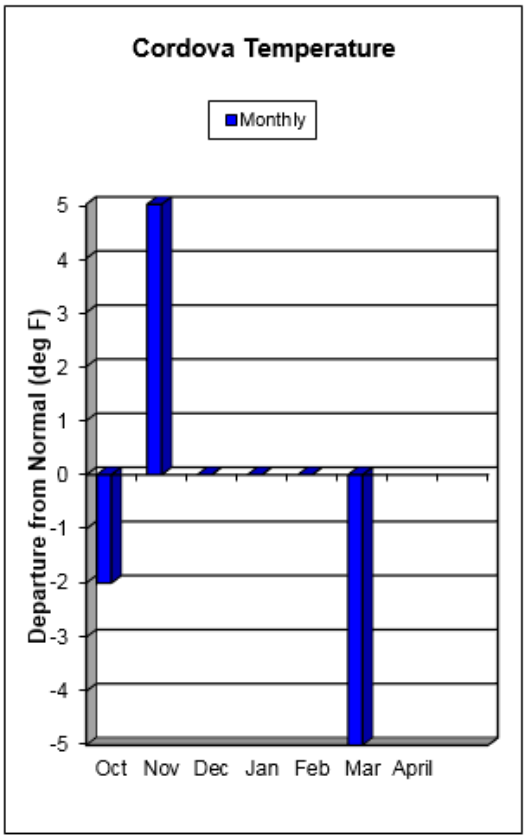
Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Kenai River at Cooper Landing	Apr-Jul	80	93	67	770	960

Precipitation

Site Name	Elev.	Inches Accumulated since October 1st			
		This Year	Last Year	1981-2010 Normal	% of Normal
Anchor River Divide	1653	13.5	23.2	16.9	80%
Cooper Lake	1200	16.9	29.2	25.2	67%
Grandview	1100	32.3	61.3	40.3	80%
Grouse Creek Divide	700	26.7	60.6	37.5	71%
Kachemak Creek	1660	31.7	64.8	37.7	84%
Kenai Moose Pens	300	5.4	7.8	8.2	66%
Mcneil Canyon	1320	13.5	21.1	16.6	81%
Middle Fork Bradley	2300	27.0	44.1	32.5	83%
Nuka Glacier	1250	36.2	71.3	54.3	67%
Port Graham	300	27.1	58.4	48.4	56%
Summit Creek	1400	11.0	21.3	15.8	70%
Turnagain Pass	1880	29.8	60.4	40.5	74%

Western Gulf





Snow pack

March was colder and drier than normal across Prince William Sound. Most snowpacks in this area increased during the month, but not as much as usual for March.

Precipitation varied across the area from 5-69% of normal.

The ten snow sites in the Sound average 83% of normal, ranging from 51% of normal at Nuka Glacier to 106% of normal at Grouse Creek Divide near Seward.

Esther Island SNOTEL, in the northwestern part of the Sound 50’ above the ocean, caught 5.9” of precipitation during February and saw its snowpack increase 7” as well, from 39” to 46” in depth.

Western Gulf

Snowpack Data

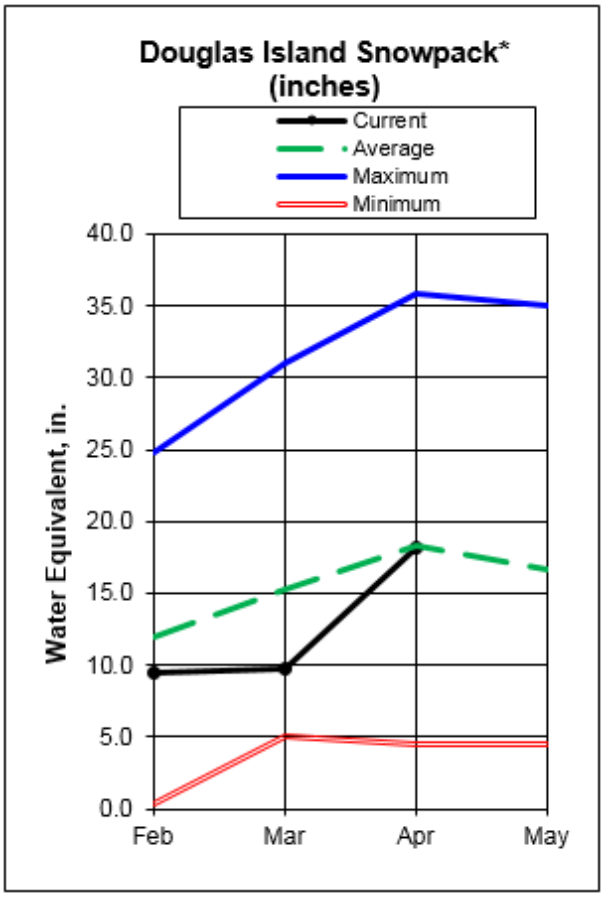
			This Year		Last Year		1981-2010 Normal	
Site Name	**Elev.**	**Date**	**Snow Depth**	**Water Content**	**Snow Depth**	**Water Content**	**Snow Depth**	**Water Content**
Exit Glacier	400	4/3/2017	55	16.7	30	11.3	51	18.2
Exit Glacier SNOTEL	400	4/1/2017	59	16.8	28	9.2	---	18.4
Grouse Creek Divide	700	4/1/2017	55	18.4	42	17.6	---	17.7
Lowe River	600	4/1/2017	40	11.9*	44	15.2	50	17.0
Mt. Eyak	1405	4/1/2017	74	25.0	38	12.2	---	28.4
Nuka Glacier	1250	3/29/2017	50	17.7	63	27.7	88	34.6
Tsaina River	1650	4/3/2017	46	13.5*	56	18.0	56	17.0
Upper Tsaina River	1750	4/1/2017	62	17.9	61	19.7	---	19.4
Valdez	50	4/1/2017	43	14.0*	45	16.0	51	15.7
Worthington Glacier	2100	4/3/2017	64	21.9*	76	28.0	75	24.6

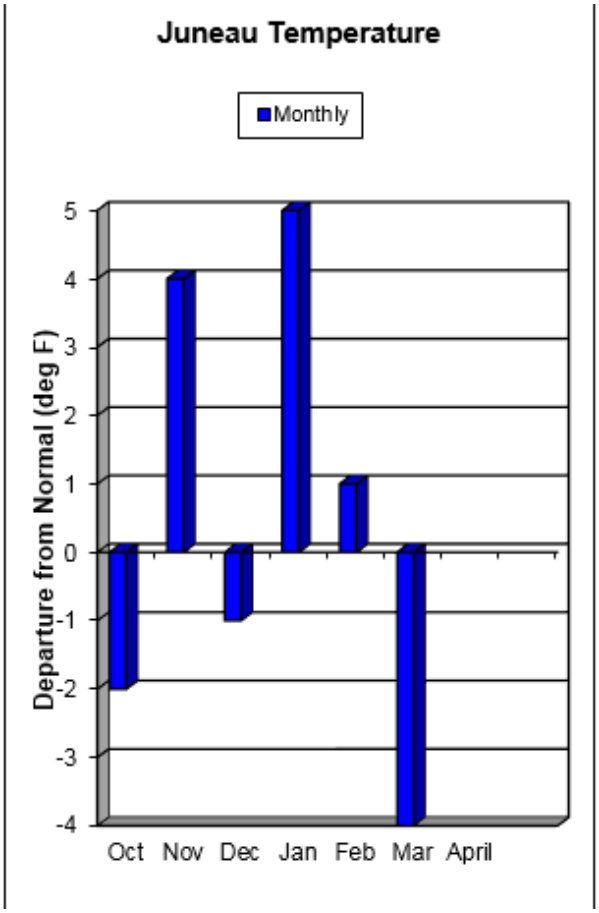
**Estimate*

Precipitation

		Inches Accumulated since October 1st			
Site Name	**Elev.**	**This Year**	**Last Year**	**1981-2010 Normal**	**% of Normal**
Esther Island	50	58.2	125.6	80.5	72%
Grouse Creek Divide	700	26.7	60.6	37.5	71%
Mt. Eyak	1405	46.1	80.5	---	---
Nuchek	50	58.0	109.2	---	---
Nuka Glacier	1250	36.2	71.3	54.3	67%
Port San Juan	50	57.2	100.1	75.7	76%
Seal Island	20	23.7	53.6	---	---
Strawberry Reef	30	34.8	63.3	---	---
Sugarloaf Mtn	550	27.0	49.3	40.5	67%
Tatitlek	50	28.7	52.6	40.0	72%

Southeast





Snow pack

February precipitation in Southeast Alaska was varied, but was generally wetter in the southern half of the panhandle than the north half. Colder than normal temperatures during the month-Juneau was 5°F below normal for the month- meant that snowpacks grew during the month, even in low lying areas.

Snowpack at both Fish Creek, near Juneau and Petersburg Reservoir snow courses (both at 500' elevation) gained depth and water content over the month, the first time since 2013.

Long Lake SNOTEL, 30 miles southeast of Juneau and at 800' of elevation, gained 10.6" of precipitation during March and had an 80" snowpack with 29.4" of water content.

The Heen Latinee SNOTEL site, 30 miles north of Juneau and at 2065' of elevation, gained 4.3" of precipitation over the month and ended March with a 61" deep snowpack with 15" of water content.

The new Mount Ripinsky snow course, looming over Haines at 2600' of elevation, had 129" of snow with 49" of water content. This is the deepest snowpack measured in Alaska this year.

Southeast

Snowpack Data

Site Name	Elev.	Date	This Year		Last Year		1981-2010 Normal	
			Snow Depth	Water Content	Snow Depth	Water Content	Snow Depth	Water Content
Cropley Lake	1650	3/30/2017	78	30.2	27	11.0	83	30.4
Eagle Crest	1200	3/30/2017	58	21.5	0	0.0	50	18.6
Fish Creek	500	3/30/2017	9	2.9	0	0.0	11	2.7
Heen Latinee	2065	4/1/2017	61	15.0	37	12.6	---	---
Institute Creek	1350	3/30/2017	41	15.2	0	0.0	---	---
Long Lake	850	4/1/2017	80	29.4	60	23.5	---	39.4
Moore Creek Bridge	2250	4/1/2017	57*	17.0*	42	16.2	65	21.3
Mt. Ripinsky	2600	4/2/2017	129	49.0	---	---	---	---
Petersburg Reservoir	550	3/31/2017	18	7.0	0	0.0	1	0.2
Petersburg Ridge, S.	1650	3/31/2017	68	23.2	15	6.6	74	27.4
Rainbow Falls	500	3/30/2017	2	0.8*	0	0.0	---	---

**Estimate*

Streamflow Forecasts

Forecast Point	Forecast Period	% of Average	Maximum(%)	Minimum(%)	50% Exceedance (KAF)	30yr Average (KAF)
Taiya River near Skagway	Apr-Jul	103	124	83	480	464

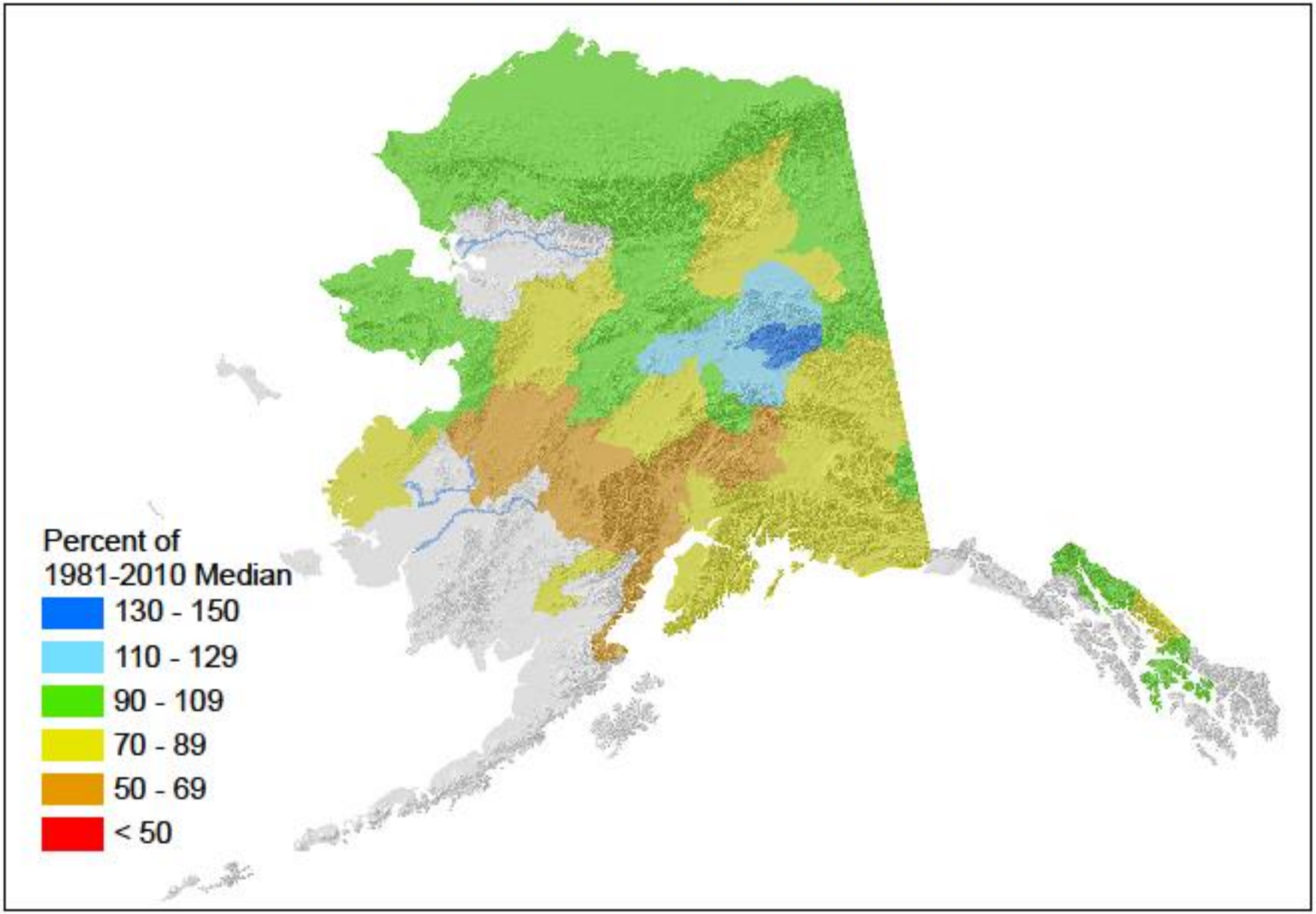
Precipitation Data

Inches Accumulated since October 1st

Site Name	Elev.	This Year	Last Year	1981-2010 Normal	% of Normal
Long Lake	850	84.6	96.2	97.7	87%
Heen Latinee	2065	35.3	36.0	---	---
Moore Creek Bridge	2250	23.8	28.5	27.4	87%

Alaska Snowpack as of April 1, 2017

Based on Snow Course and SNOTEL site Snow Water Content



USDA NRCS

For further information contact:

NRCS Alaska web site: **www.nrcs.usda.gov/wps/portal/nrcs/main/ak/snow/**
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Alaska Meteor Burst Communication System (AMBCS) web site: **www.ambcs.org**

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